

AD-A022 543

SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,
KASHMIR-TIBET BORDER REGION, 19 MAY 1975

K. J. Hill, et al

Teledyne Geotech

Prepared for:

Air Force Technical Applications Center

23 January 1976

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE



ADA022543

SPECIAL DATA COLLECTION SYSTEM EVENT REPORT
Kashmir-Tibet Border Region, 19 May 1975

K.J. Hill, M.S. Dawkins, R.R. Baumstark, and M.D. Gillespie
Alexandria Laboratories

Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314

January 1976

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED.

Sponsored By
The Defense Advanced Research Projects Agency
Nuclear Monitoring Research Office
1400 Wilson Boulevard, Arlington, Virginia 22203
ARPA Order No. 2897



Monitored By
VELA Seismological Center
312 Montgomery Street, Alexandria, Virginia 22314

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

ACCESSION for		White Section <input checked="" type="checkbox"/>	<input type="checkbox"/>
		Red Section <input type="checkbox"/>	<input type="checkbox"/>
NTIS			
DCC			
UNCLASSIFIED			
JUSTIFICATION			
BY: INFORMATION/AVAILABILITY GROUP			
DATE	AVAIL. and/or SPECIAL		
A			

Disclaimer: Neither the Defense Advanced Research Projects Agency nor the Air Force Technical Applications Center will be responsible for information contained herein which has been supplied by other organizations or contractors, and this document is subject to later revision as may be necessary. The views and conclusions presented are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency, the Air Force Technical Applications Center, or the US Government.

Unclassified

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER SDCS-ER-75-53	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) SPECIAL DATA COLLECTION SYSTEM (SDCS) Kashmir-Tibet Border Region, 19 May 1975		5. TYPE OF REPORT & PERIOD COVERED Technical
7. AUTHOR(s) Hill, K. J., Dawkins, M. S., Baumstark, R. R., and Gillespie, M. D.		6. PERFORMING ORG. REPORT NUMBER
9. PERFORMING ORGANIZATION NAME AND ADDRESS Teledyne Geotech 314 Montgomery Street Alexandria, Virginia 22314		8. CONTRACT OR GRANT NUMBER(s) F08606-74-C-0013
11. CONTROLLING OFFICE NAME AND ADDRESS Defense Advanced Research Projects Agency Nuclear Monitoring Research Office 1400 Wilson Blvd.-Arlington, Virginia		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS T/4703
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) VELA Seismological Center 312 Montgomery Street Alexandria, Virginia 22314		12. REPORT DATE 23 January 1976
		13. NUMBER OF PAGES 14
		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) APPROVED FOR PUBLIC RELEASE, DISTRIBUTION UNLIMITED.		
17. DISTRIBUTION STATEMENT (of the Abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)		

SDCS EVENT REPORT No. 53

Kashmir-Tibet Border Region, 19 May 1975.

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is: *given*

	"P" Arrival	Origin Time	Lat.	Long.	m_b	M_s
NORSAR	19:56:40.2	19:47:52	36 N	081 E	5.4	N/A
LASA	20:01:21.5	19:47:48	35.5N	078.7E	6.0	N/A
PDE		19:47:46.2	35.2N	080.8E	N/A	N/A
Hagfors	19:56:30.4	19:48:01	39 N	082 E	5.7	5.2

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

19:47:43.8 35.4N 080.7E 5.3 4.8

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at WH2YK, HN-ME, LASA and NORSAR. RK-ON, FN-WV and CPSO did not record short-period "P" arrivals and were not included in this report. Horizontal SP channels at WH2YK and HN-ME were rotated.

Long-period signals were recorded at WH2YK, RK-ON, FN-WV, CPSO, ALPA, LASA and NORSAR. HN-ME did not record long-period signal arrivals and was not included in this report. Horizontal LP channels at WH2YK, RK-ON, and CPSO were rotated. Horizontal LP channels at FN-WV were not rotated due to unknown instrument orientation.* Validity of the ALPA, LASA and NORSAR long-period vertical beams is questionable and horizontal beams were not included because of program recovery problems.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

- * Due to operational problems the instrument hole lock was repositioned and the known orientation lost. Situation corrected 24 May 75 when the instrument was moved to a new borehole.

STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES		ELEVATION METERS	INSTRUMENTATION	
		DEG	NN SECS		SHORT - PERIOD	LONG - PERIOD
ALPA	Alaska	65 14 147 44	00.0 N 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 085 34	41.4 N 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 079 30	58.0 N 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 106 13	19.0 N 20.0 W	744	HS10	7505A V 8700C H
HN-ME	Houlton, Maine	46 09 067 59	43.0 N 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 010 49	25.4 N 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 093 40	20.0 N 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 134 58	41.0 N 02.0 W	853	18300	SL210 V SL220 H

HYPOCENTER DETERMINATION

INPUT FOR EVENT 19 MAY 75
 19:47:48.0 35.500N 78.700E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
NAO	19 56 40.2	-0.0	-0.0	50.2	323.2
WH2YF	19 59 53.5	0.0	0.0	79.9	17.0
HN-ME	20 01 03.2	0.0	0.0	94.1	338.8
IAC	20 01 21.5	-0.0	-0.0	98.1	4.8

67 HERRIN TRAVEL TIME TABLES

ORIGIN	LAT.	LONG.	DEPTH (KM)	SDV	IT	STA
NO CONVERGENCE ON CAIC RUN						
19:47:58.4	35.917N	80.643E	93. CAIC	0.0	16	4
19:47:43.8	35.380N	80.728E	0. REST	0.0	3	4

CAIC				REST			
1	2	0	0	1	2	0	0
0	1	0	0	0	1	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

CHI2 COVERAGE ELLIPSE: 95 PER CENT CONF..LEVEL, SDV= 0.94
 MAJCF 225.6KM. MINCF 54.4KM. AZ= 10 AREA= 38527 SQ.KM. REST

DATA SUMMARY

INPUT FOR EVENT 19 MAY 75
19:47:48.0 35.500N 78.700E 0KM.

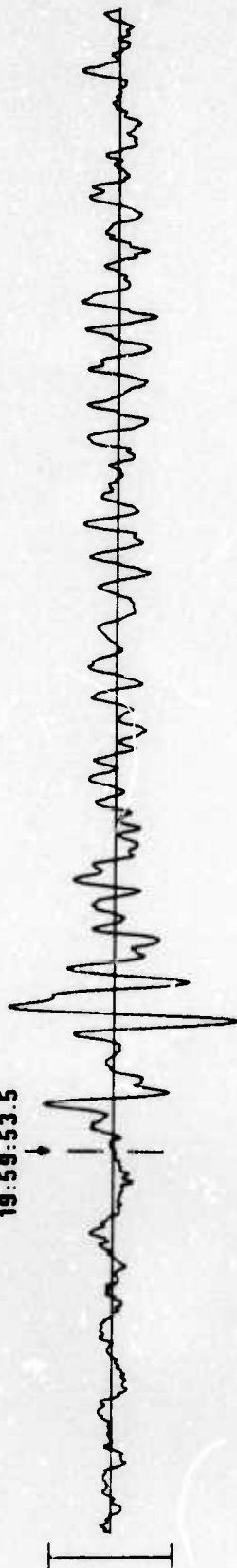
STA.	PHASE	ARRIVAL		INST	PER	A/T	MAGNITUDE		DIR	DIST
		TIME					ME	MS		
NAC	EP	19 56 40.2		AE	1.0	139.	5.54			50.2
NAC	LR	20 18 33.0		IPZ	23.0	19.		4.10		50.2
AIFA	IR	20 35 56.0		IPZ	20.0	44.		4.63		72.9
WH2YK	EP	19 59 53.5		SPZ	0.8	19.	4.69			79.9
WH2YK	IQ	20 32 36.0		IPT	25.0	52.				
WH2YK	LR	20 36 40.0		LPZ	22.0	70.		4.87		79.9
RK-ON	LR	20 47 11.0		IPZ	21.0	151.		5.27		94.0
HN-ME	EP	20 01 03.2		SPZ	1.0	21.	5.13			94.1
LAC	EP	20 01 21.5		AB	1.6	32.	5.71			98.1
LAC	LR	20 48 29.0		LPZ	22.0	41.		4.72		98.1
FN-WV	LR	20 52 59.0		LPZ	20.0	57.		4.89		104.2
CPO	LR	20 57 33.0		IPZ	18.0	85.		5.08		108.2

ORIGIN	IAT.	LONG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	LPSTA
19:47:43.8	35.380N	80.728E	0. REST	5.27	0.46	4 4.80	0.4		7

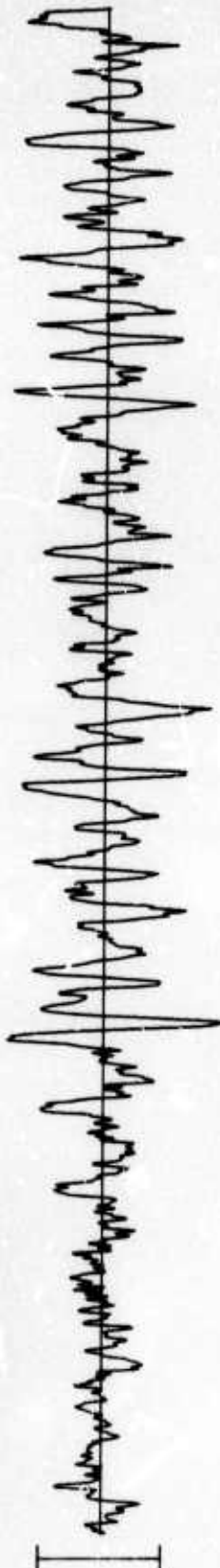
WH2YK 19 MAY 75

19:59:53.5

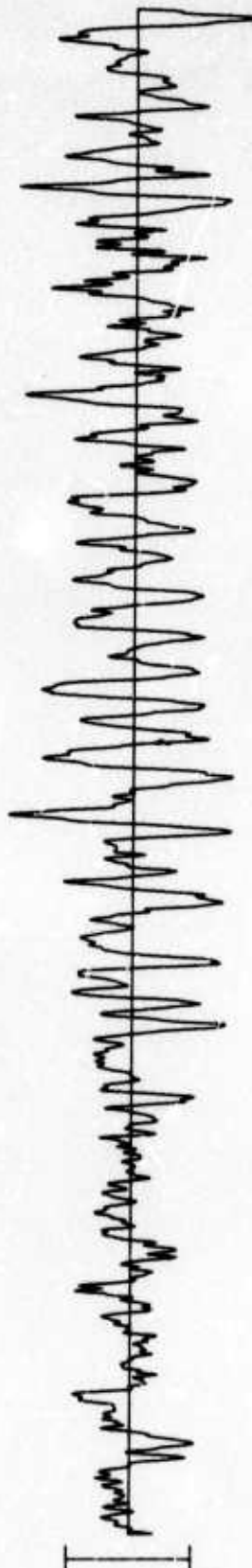
SPZ
25.53 Mμ



SPR
8.83 Mμ



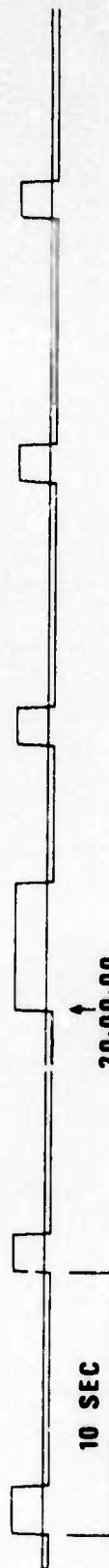
SPT
10.68 Mμ



TIME

10 SEC

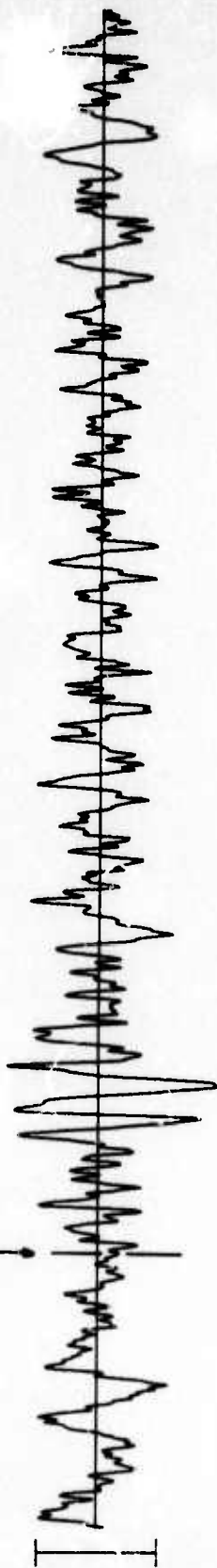
20:00:00



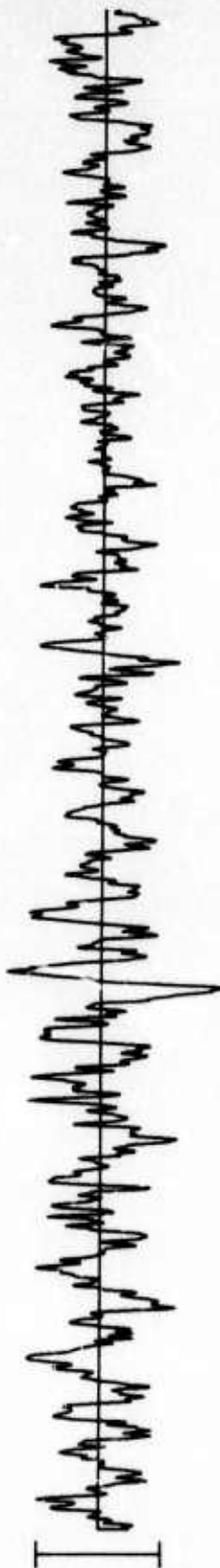
HN-ME 19 MAY 75

20:01:03.2

SPZ
14.00 MP



SPR
10.32 MP



SPT
5.20 MP



TIME



10 SEC

20:01:30

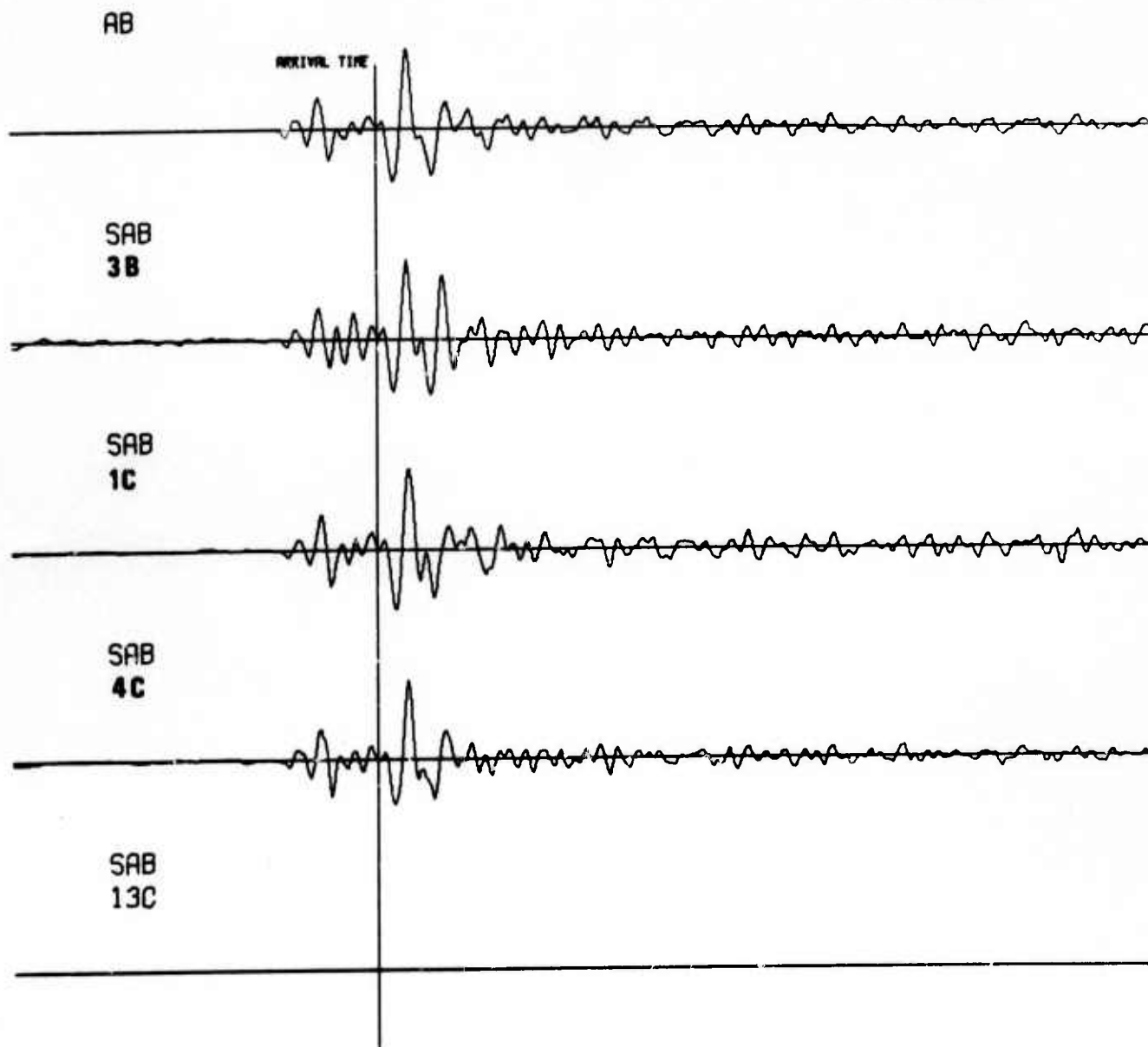
NORSAR EVENT FILE

1975 MAY 19

EPX NO. 50900 ARR. 19.56.44.2 35.8N 80.6E 5.3MB 33KM

DIST = 49.8 AZI = 87.0 AMP = 63.0 PER = 1.2

—|— = 5 SECONDS



LASA

1 19 MAY 1975
2 19 47 48 35.5N 78.7E 33C D 4.8 302 EASTERN KASHMIR
3 20 1 21.5 LAO P 1.4 0.9 24.9 98.2 356.0

EPX 96506

BP-B 0.6-2.0 HZ

ABN 5.2

20:01:11.5

AB 21

FAB 12

PAB1 11

PAB2 14

PAB3 14

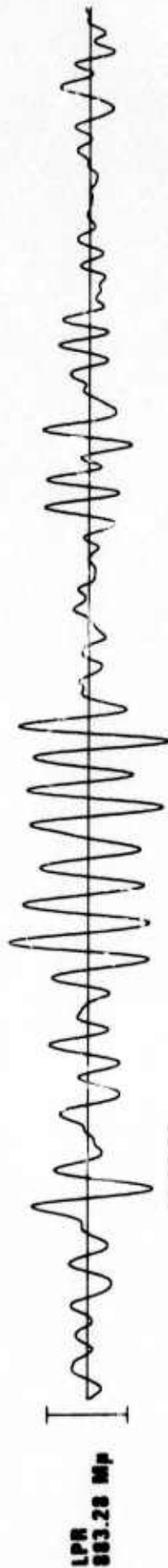
PAB4 9.6

10 SEC

-8-

WH2YK 19 MAY 75

20:36:43



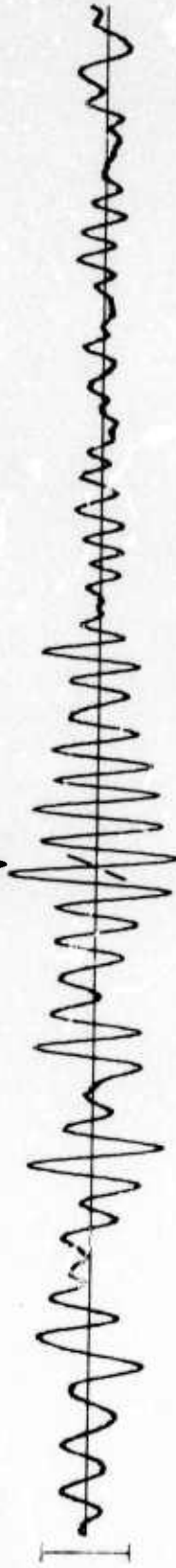
20:32:36



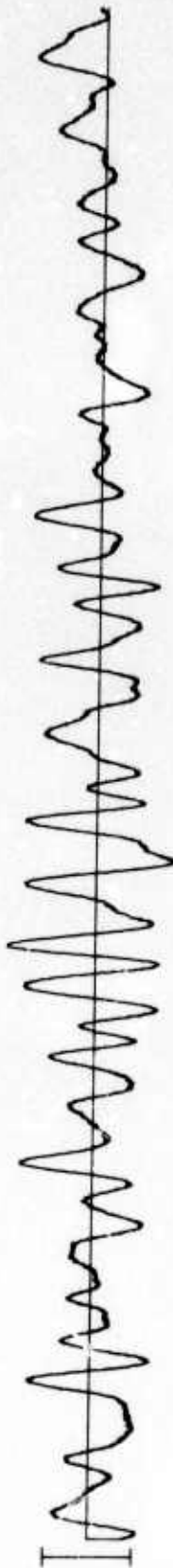
RK-CN 19 MAY 75

20:47:11

LPZ
1646.11 MHz



LPR
2667.46 MHz



LPT
4667.46 MHz



TIME



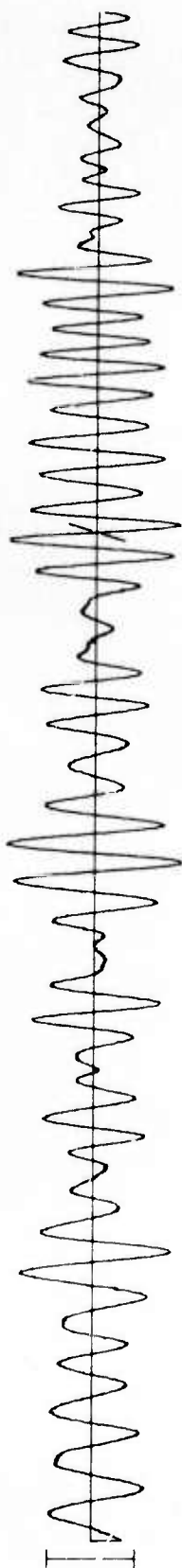
2 MIN

20:50:00

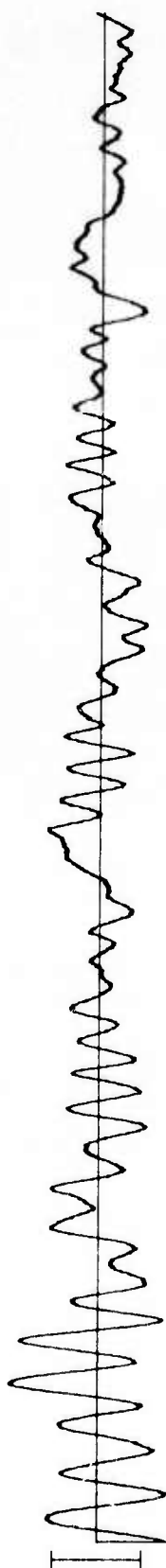
FN-WV 19 MAY 75

20:52:59

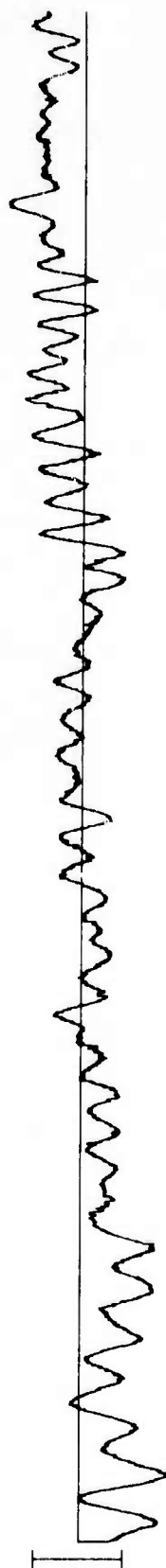
LPZ
518.37 MHz



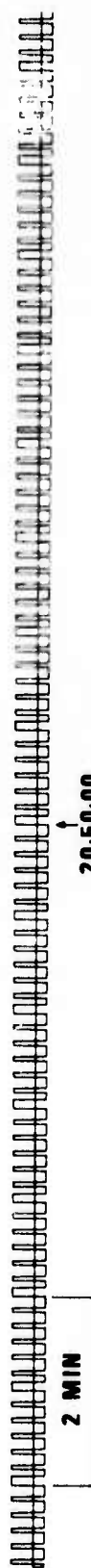
LPR
912.09 MHz



LPT
1000.19 MHz



TIME



2 MIN

20:50:00

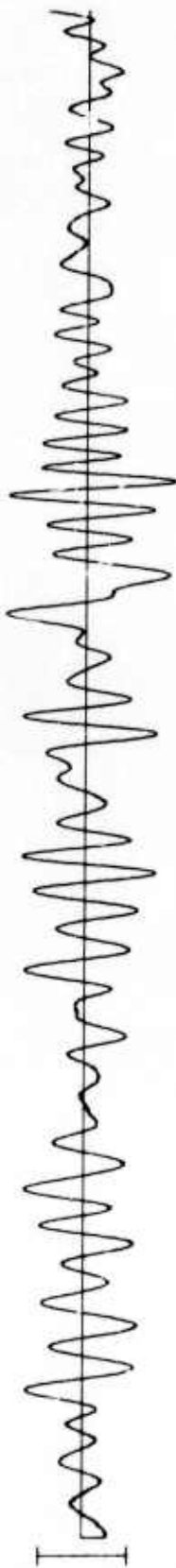
CPS0 19 MAY 75

20:57:33

LPZ
687.37 M μ



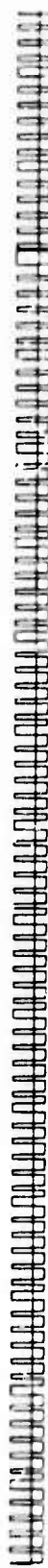
LPR
877.79 M μ



LPT
800.64 M μ



TIME



2 MIN

20:55:00

ARRAY LONG PERIOD VERTICAL BEAMS 19 MAY 75

